Mihir Balsara

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EDUCATION

Georgia Institute of Technology   Atlanta, GA
Bachelor's of Science in Computer Science - GPA: 3.76   *Expected May 2026*
Relevant Coursework

Data Structures & Algorithms, Design & Analysis of Algorithms, Object-Oriented Programming, Computer Organization, Linear Algebra, Discrete Mathematics

EXPERIENCE

Cybersecurity Research Intern | *C, Java, Python, docker, Nginx, Jenkins, Git*   May 2024 – Present
Georgia Tech Research Institute   *Atlanta, GA*
- Competing in the DARPA AI Cyber Challenge (AlxCC) with Team Atlanta (SSLab, GTRI, KAIST Hacking Lab, Samsung Research Korea, etc.) under Professor Taesoo Kim
- Qualified for AIxCC Finals at DEFCON 32
- Developed C-based initial corpus generator and mutators to semantically adapt current Cyber Reasoning System to application-specific infrastructure

Research Assistant | *Python, pandas, SciPy, Matplotlib, Seaborn*   Aug. 2022 – Jul. 2023
Lincoln Labs   *Lexington, MA*
- Conducted research on the impact of online vs. offline education on student performance in mathematics
- Utilized data visualization tools to create compelling visuals that highlighted the differences in students' math performance reports
- Published research findings in peer-reviewed Boston College journal

Data Engineer | *Python, pandas, Matplotlib*   Jun. 2022 - Aug. 2022
Russian School of Mathematics   *Lexington, MA*
- Mined student score and report data from RSM's database to identify trends in student performance
- Developed an efficient algorithm to process and analyze 2 million student data points
- Leveraged pandas library to clean and prepare 2 million student data points for analysis

Software Developer Intern | *WordPress, PHP, Apache, SQL, CMS*   Apr. 2021 – Aug. 2021
RK Centers   *Burlington, MA*
- Built a secure login and user-friendly property selection portal using WordPress and PHP
- Optimized MySQL database structure to ensure seamless integration with the new site framework
- Increased client-server interaction efficiency by 20% resulting in faster loading times and improved user experience

PROJECTS

Spotify Wrapped | *Android Studio, Java, Gradle, Firebase, GitHub*   Feb. 2024 – Apr. 2024
- Developed a mobile app with Firebase authentication for login and account management
- Integrated Spotify API to generate personalized music recommendations
- Developed a Community Page where users can explore other accounts, view top artists, and share top songs

1Record - Cornell Health RX Winner | *Python, MongoDB, ReactJS*   Mar. 2024
- Developed software using LLMs to extract context from Electronic Health Records, sort patients by similarity, and predict rare condition symptoms for tailored treatments.

Omex Development | *JavaScript, Node.js, MongoDB, Docker, Jenkins*   Jul. 2021 – Present
- Designed and developed two applications for the Discord platform, reaching a user base of 346,075
- Automated application deployments using Docker containers
- Implemented a Jenkins pipeline for continuous integration and delivery minimizing update downtime to under 5 minutes

Silicon Studios | *Lua, Blender, Roblox Studio*   Jul. 2018 – Present
- Managed development of the popular Roblox game, "Drive a Tesla," achieving over 6 million visits
- Recipient of the **Sparkletime Crown of O's** virtual award for exceeding 100,000+ monthly active users

AWARDS

CDAIT IOT Challenge Finalist   May 2024
- Developed robot prototype to deliver food to students around Georgia Tech campus

Cornell Health RX Winner   Mar. 2024
- Awarded $3,000 cash prize for top placement in Cornell hosted hackathon

Sparkletime Crown of O's   Jul. 2024
- Virtual Roblox award achieved for receiving 100,000+ monthly active users in **Drive a Tesla**

Xerox Award for Innovation and Information Technology   Jun. 2022
- Book Award for innovation leadership, pursuing tech opportunities, and guiding peers in creative problem-solving

TECHNICAL SKILLS

Languages: Python, C#, Java, C++, JavaScript, C, TypeScript, Kotlin, SQL (Postgres), PHP, HTML/CSS
Technologies: React, Node.js, JUnit, WordPress, Jenkins, Gradle, Git, Docker, Unity, Unreal, Debuggers, MongoDB, Amazon Web Services, VS Code, Windows, MacOS, Debian Linux, NumPy, Matplotlib, Seaborn, SciPi
Concepts: Optimization, Debugging, Communication, Software Engineering, Abstraction, Documentation, Agile, Performance Profiling/Benchmarking, Data-Driven Systems, Cross-Platform Development